REMARKS

Claims 1-18 are pending in the application. Claims 1-12 and 18 are rejected. Claims 13-17 are objected to.

The claims have been amended to correct improper multiple dependencies and to delete all brackets, braces and parenthesis around definitions.

In addition, claim 2 was amended to expressly recite the definitions of m and Q and of X and A^1, since claim 2, being an independent claim, should be complete within itself.

Claims 14 and 15 have been amended to recite methods of treatment as supported at least by the disclosure at page 43, line 19 to page 44, line 24.

The amendment to claim 18 deletes one member of a Markush group.

Accordingly, no new matter is added.

A. Claim Objections

The Examiner objects to claims 13-17, because they are multiple dependent claims that depend from multiple dependent claims. Accordingly, claims 13-17 were not considered on the merits.

The improper multiple dependency has been corrected.

B. Claim Rejections - 35 U.S.C. § 112

Claims 1-12 and 18 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner considers the brackets, braces and parentheses around definitions to be confusing. The Examiner suggests that these brackets, braces and parentheses be deleted.

The claims have been amended to delete all brackets, braces and parenthesis around the definitions.

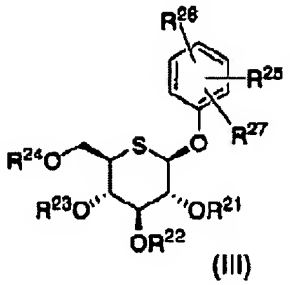
B. Claim Rejections - 35 U.S.C. § 102

Claim 18 is rejected under 35 U.S.C. § 102(b) as being anticipated by Yuasa et al. ("Relative Nucleophilicity of the Two Sulfur Atoms in 1,5-Dithioglucopyranoside", Angewandte Chemie, International Edition in English, 36(8), pp. 868-870, 1997).

The Examiner asserts that Yuasa et al. disclose compounds which meet the limitations of that instantly claimed compound in claim 18 wherein R^{21-24} are acetyl groups [*sic.* acyl groups], R^{26-27} are H, and R^{25} is halogen. The Examiner directs Applicant's attention to compound (2-X) on page 869, wherein X is F or Cl.

For the following reasons, the rejection is overcome.

The invention of amended claim 18 is directed to intermediates of the compound of formula (i) wherein Y is -O-, which is represented by the compound of formula (III):



(III)

wherein R^{25} represents an amino group, a C_{2-6} alkanoyl group, a carboxyl group, a formyl group, a C_{2-6} alkoxycarbonyl group or a hydroxyl group.

In view of the knowledge that a β-bond between an aglycon and glucose is an important structure as an inhibitor of SGLT 2 activity, there had been a great demand to provide 5-thio-β-D-glucopyranoside derivatives. Prior to the present invention, however, there had been no chemical synthesis for β-selective glycosylation of 5-thioglucose derivatives, and thus, it had been impossible to synthesize aryl 5-thio-β-D-glucopyranoside derivatives. However, the inventors of the present invention found a chemical synthesis for β-selective glycosylation of 5-thioglucose derivatives as disclosed in another application (U.S. Appln. No. 10/521,809), whereby aryl 5-thio-β-D-glucopyranoside derivatives of formulas (i) and (III) of the present invention could be synthesized. Therefore, the aryl 5-thio-β-D-glucopyranoside derivatives of formula (III) of the present invention are new compounds which had not been synthesized before the present inventors found the β-selective glycosylation of 5-thioglucose derivatives.

Yuasa et al. discloses a physicochemical study on the anomeric effect by means of measuring for the oxidation of 4-substituted phenyl α- and β-5-thioglucopyranosides. Yuasa et al. happens to disclose phenyl 5-thioglucopyranoside compounds (2-X) wherein the phenyl is

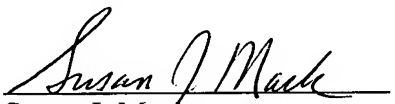
substituted by X (X = OMe, H, F, Cl, CF_3, NO_2) (See left column on page 869). To more clearly distinguish between the compounds of claim 18 and the compounds (2-X), of Yuasa et al., claim 18 has been amended to delete "a halogen atom" from the definition of R^{25}. However, Yuasa et al. contains no specific disclosure of how to synthesize the phenyl α- and β-5-thioglucopyranosides. Therefore, the aryl 5-thio-β-D-glucopyranoside compounds claimed in amended claim 18 of the subject application are not anticipated by Yuasa et al.

In view of the above, the Examiner is requested, respectfully, to reconsider and remove this rejection.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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